

DEQ EMS Implementation 2009-2010

The DEQ Implementation Plan is a compilation activities, exercises, and procedures that are designed to improved environmental performance by DEQ. The report addresses activities to be conducted in order to avoid occurrence of and to reduce environmental impact from DEQ operations that have been identified to have significant environmental aspects (interactions).

Each year, an EMS Project Team is charged to develop an inventory of DEQ's environmental aspects and impacts, and to determine which aspects are potentially significant impacts. The primary significant environmental aspect related to DEQ internal operations is energy use, and Executive Order 82 (2009) provides stimulus for further reductions in energy consumption. Efforts to reduce solid waste, to reduce water wastage, to reduce use of non-renewable resources, and to improve "green" product and services procurement and contract related aspects, will continue on an office by office basis.

This Implementation Plan is considered a living document; hence, it is subject to scheduled, periodic amendments in the form of progress updates, activity additions, and activity removal upon completion. For additional information related to any of the implementation plan items, please contact G. Stephen Coe (804-698-4029 or steve.coe@deq.virginia.gov).

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CHAPTER TWO:

A. Objectives & Targets

- A1. Electrical and Thermal Energy Use: Pursuant to Executive Order 48 (06) - To improve Energy Conservation and Efficiency by DEQ operations to effect a 15% reduction of energy consumption by Agency by 2010 based upon FY 2006 use. Pursuant to Executive Order 82 (09) – To effect an additional 5% reduction in energy consumption by Agency by 2012.
- A2. Waste Generation: Reduce waste generation through waste minimization, reuse and recycling in order to maximize recycling and non-disposal options for office material.
- A3. Travel Management: Reduce Agency and staff use of non-renewable fuel resources through efficient scheduling of fleet vehicles, use of alternative fuels where available, and maximizing systems of mass transit, ridesharing and telecommuting for staff to reduce overall travel mileage by staff.
- A4. Green Procurement: Maximize Agency procurement of products with recycled content, reduced toxicity, and increased energy efficiency, and to utilize renewable resources where possible in order to increase green procurement as a percentage of annual purchases.
- A5. Water Conservation: Maximize responsible water use by agency in order to minimize water use and wastage.

B. Training

- B1. Training Provided as Informational Material for General Awareness/Consumption and That Does Not Require Certification of Completion or Training Record Documentation.
- B2. Training to be delivered to Specific DEQ Staff Whose Role and Responsibility May Directly Impact Certain Significant Environmental Impact Identified by the EMS Project Team.

C. Operational Controls

- C1. Ensure Energy Conservation and Energy Reductions

D. Monitoring & Measurements

- D1. Establish Baseline and Periodic Energy Consumption by DEQ Operations, reporting annually.
- D2. Track recycling by all DEQ offices, reporting materials and weights of material recycled annually.
- D3. Track vehicle mileage and fuel use by all DEQ vehicles, reporting annually on both. Track staff use of alternative travel options including ridesharing, carpooling, mass transit, biking, and walking. Track staff use of telecommuting and alternative work schedules.
- D4. Track all green purchasing during year by DEQ offices, reporting on annual costs and category of expenditures.
- D5. Track all water conservation measures taken in DEQ offices by staff or landlords. Where possible, track water usage by office.

CHAPTER ONE

1. Individual Implementation Work Items

- 1.1 Environmental Policy** – The Environmental Policy is in place.
Responsible Party: G. Stephen Coe
Date for Completion: 7/02/2007 **Status:** Complete
Comment: The DEQ Environmental Policy and the EMS Manual are posted on the DEQ Internet and Intranet for dissemination.
- 1.2 FY 2003 Budget** – Budget reductions have required the redeployment of previously assigned resources and the development of a revised EMS plan.
Responsible Party: G. Stephen Coe
Date for Completion: 7/02/2007 **Status:** review and modifications are being planned for 2009-2010 time frame.
Comment: Proposed budget and needed resources for EMS program activities under review.
- 1.3 EMS Management Revised Structure** – The roles, responsibilities, and authorities of the EMS Project Team are under review in order to facilitate more efficient EMS implementation.
Responsible Party: The Director after receiving the recommendations of the LT.
Date for Completion: 1/5/2010 **Status:** under way
Comment:
- 1.4 EMS Project Team Charter**
Responsible Party: G. Stephen Coe.
Date for Completion: 10/01/2007 **Status:** Complete
Comment: Charter document will be reviewed in 2009.
- 1.5 EMS Implementation Plan Assessment** – The **EMS Project Team** has determined that the next EMS assessment be done annually.
Responsible Party: G. Stephen Coe
Date for Completion: TBD **Status:** Pending
Comment:
- 1.6 EMS and Regulatory Compliance Audits** – The **EMS Project Team** has recommended that the EMS Audit requirement be handled by an internal committee established each year for this purpose.
Responsible Party: G. Stephen Coe
Methods: On site audit of the EMS throughout DEQ
Date for Completion: TBD **Status:** Pending
Comment:
- 1.7 Records and Document Control Procedures** – The EMS structure requires that the organization establish and maintain procedures for the identification, maintenance, and disposition of environmental records and controlling the distribution of new EMS documents and removal of obsolete EMS documents.

To be done – Establish procedures for document control and records retention.
Responsible Party: G. Stephen Coe
Methods: **General Guidance Procedure** is included in the EMS Manual
Date for Completion: 1/1/09
Status: Pending
Comment:

- 1.8 Emergency Preparedness and Response (EPR)** – The EMS structure requires the organization to establish procedures for identifying the potential for emergency and accident situations, preparing response plans, and periodically testing response procedures.

Responsible Party(ies): DEQ Safety Office

Methods:

Date for Completion:

Status: In-Progress

Comment:

- 1.9 Documentation** – The EMS structure requires organizations to establish information that describes the operation of the EMS. At the DEQ, this takes the form of an EMS Manual that has been completed

Responsible Party: G. Stephen Coe

Date for Completions: 11/30/2009

Status: Under way

Comment:

- 1.10 Legal and Other Requirements** – The EMS structure requires organizations to establish and maintain a procedure for having access to environmental legal and other requirements. At the DEQ, the **EMS Project Team** has recommended that an archive of legal and other requirements be established and has written this into a procedure in the EMS Manual.

To be done: **Maintain Legal Archive**

Responsible Party(ies): Director of Administration, Regional Directors, Policy Office, Regulatory Affairs Manager, and EMS Manager.

Methods: Compile and maintain an archive of environmental laws, regulations, ordinances, and other requirements. A key element of this task is to review local ordinances to determine if there are any that may affect the DEQ operations.

Date for Completion: 12/01/2009

Status: Pending

Comment: Procedures for identifying and updating Legal and Other Requirements are found in the EMS Manual and detailed procedures can be found in EMS Level II Documentation.

- 1.11 Internal Communications** – The EMS structure requires the establishment and maintenance of procedures for communicating throughout the organization about the EMS. The **EMS Project Team** recommends that this communication be a responsibility of the EMS Manager and the Public Affairs Manager.

Responsible Party(ies): **EMS Lead** - Bill Hayden, G. Stephen Coe

Methods: DEQNET, direct e-mail, general awareness training, office staff meetings, functional unit staff meetings, details by programs to be determined.

Date for Completion : on-going

Status: Complete/Continuing

Comment: This is addressed in the EMS Manual

- 1.12 External Communications** – The EMS structure requires organizations to determine what information about the EMS it will furnish to external interested parties. At DEQ, it has been determined that for external communication, the information will be provided on the DEQ web site. This includes the EMS Manual, the EMS Policy Statement, the EMA Implementation Plan and the Pollution Prevention Plan.

Responsible Party(ies): Bill Hayden, G. Stephen Coe

Date for Completion: on-going **Status:** Complete/Continuing

Comment:

- 1.13 Training Records** – The EMS structure requires the establishment of a procedure for maintaining EMS training records.

Responsible Party(ies): Training Services Manager

Methods: Established and implemented a training records procedure.

Date for Completion: on-going **Status:** on-going

Comment: A general procedure is documented in the EMS Manual.

- 1.14 Oversight** – In order to ensure complete implementation and ongoing maintenance of the EMS, it is recommended that one individual be designated as responsible for providing management oversight of the EMS.

Responsible Party(ies): EMS Lead – G. Stephen Coe

Methods: Management Review

Means: 8 work hours/month

Date for Completion: on-going **Status:** on-going

Comment:

- 1.15 Agency-wide EMS Overview Training** - The EMS structure requires that staff becomes familiar with the concept of environmental management systems and contents of the DEQ EMS

Responsible Party(ies): G. Stephen Coe and EMS Project Team

Methods: training sessions in each regional and division office.

Date for Completion: Continuous **Status:** Continuous

Comment: An EMS overview is included in the New Employee Orientation Training sessions that are offered periodically. Overview material is posted on DEQNET. A new information initiative will be implemented within 30 days of implementing the new EMS organizational structure.

2. Activities to be completed to apply for the VA DEQ VEEP Requirements.

- 2.1 Pollution Prevention Plan** – The Virginia DEQ's Environmental Excellence Program at the Environmental Enterprise (E3) level, requires the establishment of a pollution prevention plan that has measurable objectives and targets and reports its achievements.

Responsible Party(ies): G. Stephen Coe, Jay Gutshall, and Sharon Baxter

Methods: Reviewing solid waste, energy (computers, lighting), HVAC, vehicle use, electronic filing/faxing, and other green office alternatives.

Means:

Date for Completion: on-going **Status:** on-going

Comment:

2.2 VEEP Application and Annual Report –DEQ must report its accomplishments under the program.

Responsible Party(ies): The Director

Methods:

Means:

Completions Date: Within 90 days of EMS Assessment

Status: Pending

Comment:

CHAPTER TWO

A. OBJECTIVES AND TARGETS

The EMS structure defines setting documented Objectives and Targets as an important element to be implemented in order to improve environmental performance. For 2009-2010, the DEQ EMS Management Team with input from the **EMS Project Team** has identified energy use as a significant environmental impact. The following are lists of integrated environmental objectives and targets to be implemented and achieved in order to reduce the level of impact, developed to maximize outcome with the most efficient use of resources.

A1. Electrical and Thermal Energy Use: Improve Energy Conservation and Efficiency Within DEQ Facilities (Both Electrical and Thermal Energy) Where Possible.

A1.1 Evaluate any peak-hour provisions in power contracts.

Responsible Party(ies): Jay Gutshall

Date for Completion: on-going

Status: underway

Methods: Review power contracts with landlord.

Comment:

A1.2 Ensure that DEQ facilities go into sleep mode when unoccupied

Responsible Party(ies): Jay Gutshall

Date for Completion: on-going

Status: underway

Method: Review and update current practices to ensure electric power use efficiency

Comment:

A1.3 Review guidelines for cleaning crew shutdown of power and revise as necessary to ensure minimal power use at night.

Responsible Party(ies): Jay Gutshall

Date for Completion: on-going

Status: underway

Method: Review and update current office practices to ensure electric power use efficiency.

Comment:

A1.4 Establish agency guideline/plan for energy conservation and develop procedures for periodic monitoring of and controlling deviation from energy conservation.

Responsible Party(ies): G. Stephen Coe and Jay Gutshall

Date of Completion: on-going

Status: on-going

Method: Staff development

Comment:

A2. Energy Conservation and Procurement: Incorporate Procurement Language Supportive of DEQ EMS in Future Request for Proposal (RFP) Documents.

A2.1 Review for feasibility to make electric power use efficiency an element of RFPs for property leases.

Responsible Party(ies): Jay Gutshall

Date for Completion: on-going

Status : on-going

Methods: Review and update current practices to ensure electric power use efficiency

Comment: The DGS's current RFP for leased space contains energy efficient lighting/electrical requirements. Any additional modification to RFP can be done to ensure further energy efficiency objective when a need for such a RFP arises. DGS would have to approve such language modification in the RFP. In the RFP, an Environmental Impact Study is also required.

A2.2 Examine feasibility of establishing a uniform eco-efficient policy on HVAC performance for DEQ facilities and make it a contractual requirement of leases, as appropriate.

Responsible Party(ies) : Jay Gutshall

Date for Completion: under review

Status : under review

Methods: TBD

Comment:

A2.4 Make EMS a consideration on RFPs for services.

Responsible Party(ies): Valerie Thomson

Date for Completion: On-going

Status : Continuous

Methods: Introduce an EMS measurement criterion into RFPs

Comment:

B. TRAINING

The EMS structure requires that employees whose job responsibilities could create a significant impact on the environment be trained and competent to carry out their responsibilities without unnecessarily triggering a significant environmental impact. The **EMS Project Team** has identified energy use as the category of significant environmental impact. The training activities are integrated and categorized by their resource and record keeping requirements and how they are delivered to allow for maximum delivery efficiency and effectiveness.

B1. EMS Related Training to be Implemented Agency-Wide or to be Offered to a Large Segment of DEQ Staff. This would have multiple deadlines for phasing in certain aspects of training. The training may be delivered through a classroom or an on-line setting but should be ultimately implemented and managed by the DEQ Training Services Office with the assistance of assigned individuals or offices. Subsequent to the first training cycle, the training will be delivered on an annual basis and to be offered to new employees at their orientation.

B1.1 Provide training to staff on EMS programs.

Responsible parties: This task is a component of the DEQ Training Services activities. Kevin Vaughn

Date for Completion: On-going **Status:** In-progress

B1.2 Provide electric power use efficiency training for DEQ employees, landlords, and their staffs.

Responsible Party(ies): This task is referred to the DEQ Training Services for inclusion in the EMS training.

Date for Completion: On-going **Status -** In-Progress

Methods: Intranet/classroom

Comment: Energy Conservation Policy in effect. Executive Order 82 (2009) requires agency programs.

B1.3 Provide training to all DEQ personnel on thermal energy conservation.

Responsible Party(ies): This task is referred to the DEQ Training Services for inclusion in the EMS training curriculum

Date for Completion: On-going **Status -** In-Progress

Method: Design on-line training materials.

Comment: Energy Conservation Policy in effect. Executive Order 82 (2009) requires agency programs.

B1.4 Identify Training Needs to Renew EMS Awareness

Responsible Party(ies): **EMS Project Team and** DEQ Training Services for inclusion in the EMS training. Kevin Vaughn

Date for Completion: **30 days following EMS Restructure Status -** In-Progress

Method: Identify Training Needs and Design on-line training materials.

Comment:

B2. Training to be delivered to Specific DEQ Staff Whose Role and Responsibility May Directly Impact Certain Significant Environmental Aspects Identified by the EMS

Project Team. This training would require documented certification of completion in the staff's training record. The delivery of the training may or may not be conducted by the Training Services Office but it must document such training in the staff training record.

C. OPERATIONAL CONTROL

The EMS structure requires organizations to put in place operational control over activities that are associated with the identified significant environmental aspects in line with its policy, objectives, and targets. The EMS Management Workgroup has identified water use and electric energy use as categories of potentially significant environmental aspects. Following are the operational controls that are or need to be put in place to prevent and to reduce occurrence of negative impacts related to these significant aspects and to ensure that objectives and targets are achieved.

C1. Ensure Energy Conservation Required by Executive Orders

C1.1 Continue with energy conservation training as listed in Training Sections B2.1. and B2.3.

Methods: The EMS Management Team will provide oversight, and through EMS Implementation Plan Activity Coordinators.

C1.2 To ensure future RFPs and facility leases contain language or content addressing or improving upon existing:

- a) Eco-efficiency in HVAC performances. [Objectives & Targets Section A5.3]
- b) Building operation to go into sleep mode at night [Objectives & Targets Section A3.2].
- c) Guideline for cleaning crew shutdown of power [Objectives & Targets Section A3.3].
- d) Electric power use efficiency [Objectives & Targets Section A5.2].

Methods: Include in the RFPs evaluation and selection criteria in support of aforementioned items.

Comment:

D. MONITORING AND MEASUREMENT

The EMS structure requires that organizations establish and maintain documented procedures to monitor and measure the key characteristics of activities that are associated with the identified significant environmental aspects in line with its policy and objectives. The EMS Project Team has identified energy use as the category of potentially significant environmental aspects. Following are the monitoring and measuring activities related to this significant aspect. Within this section, there are monitoring and measurement activities that serve to establish baseline data for future evaluation. The other monitoring and measurement activities are means to identify deviation from objectives and targets and to assist operational control in meeting its purpose. In most cases, unless specified otherwise, the baseline data reflects fiscal year activities (FY 2009: 7/01/08 to 6/30/09).

D1. Establish Baseline and Periodic Electric and Thermal Energy Consumption by DEQ Facilities.

D1.1 Measure Electrical (Kilowatt) and Thermal Energy (Fuel) Consumption by DEQ Facilities.

Responsible Party(ies): Jay Gutshall

Date for Completion: annually, with 15% required by EO 48 by 2010; annually with an additional 5% required by EO 82 by 2012.

Method: Refer to power company invoices and facility management billing records for fuel usage and report to EMS Project Team and DEQ LT.

Comment: Jay will collect records from building management on an established periodic basis with information breakdowns by month, in order to assist operational control activities. Jay maintains the procedures and data associated with baseline data collection activity.

D1.2 To monitor periodic electrical and thermal energy consumption level in accordance with the established monitoring plan.

Responsible Party(ies): Jay Gutshall

Date for Completion: On-going quarterly monitoring **Status:** Pending reassignment of responsibilities.

Method: Review of Monthly Records

Comment: